

January 11, 2023



NORTH
Dakota | Water Resources
Be Legendary.

DWR OVERVIEW AGENCY & BUDGET

Senate Appropriations Committee | Senate Bill 2020 | 68th Legislative Assembly



Divisions Within DWR Remain
The Same Including:

- Administration
- Atmospheric Resources
- Planning & Education
- Regulatory
- Water Appropriation
- Water Development

ND CENTURY CODE TITLE 61

DEPARTMENT OF WATER RESOURCES

2021 LEGISLATIVE SESSION - HB 1353 RESTRUCTURED THE AGENCY AS THE DWR,
APPOINTED A DIRECTOR, & MADE THE AGENCY A MEMBER OF THE GOVERNOR'S CABINET

MISSION, VISION, & VALUES

5-YEAR STRATEGIC PLAN



MISSION

To responsibly manage North Dakota's water needs and risks for the people's benefit.



VISION

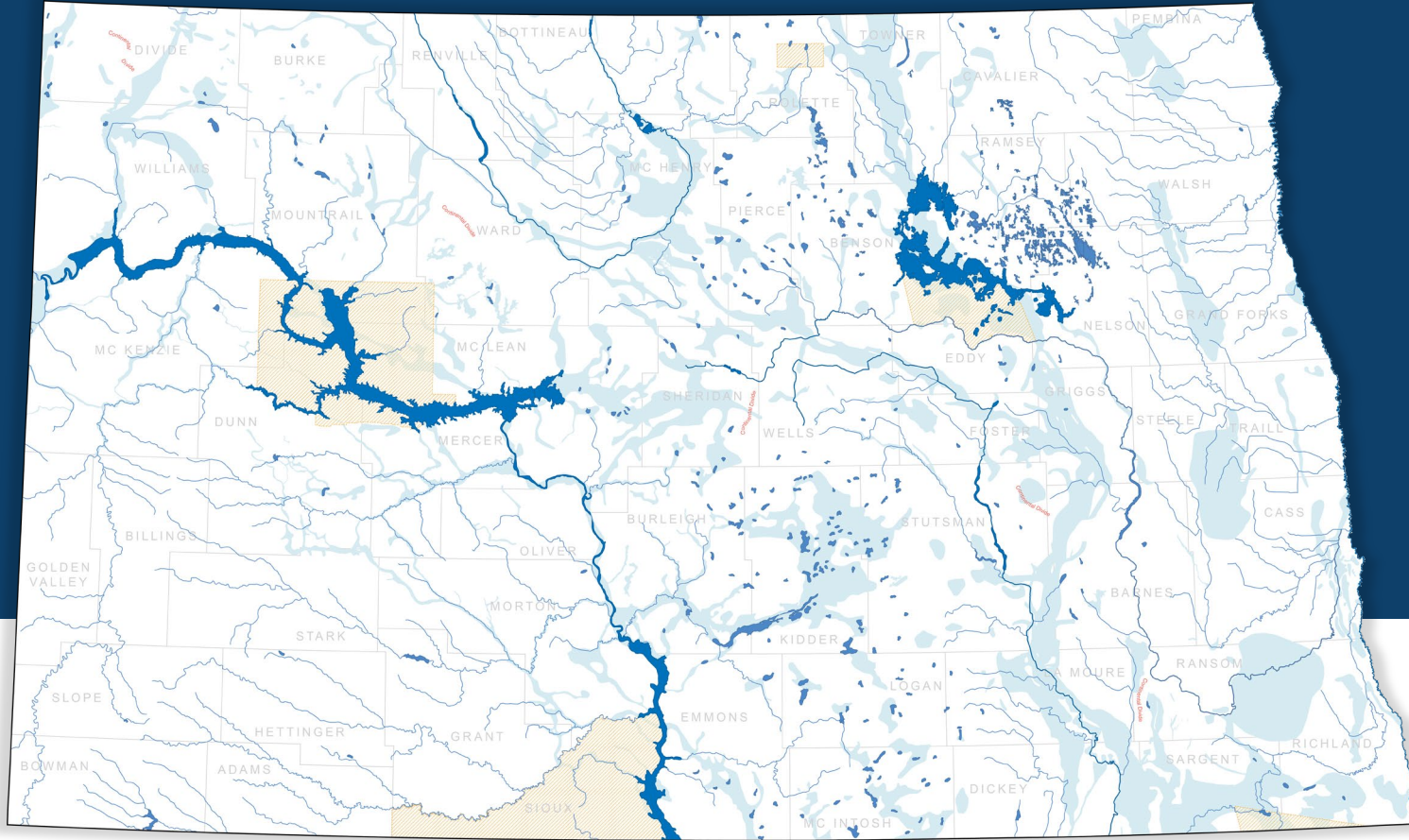
The Department of Water Resources will sustainably manage and develop North Dakota's water resources for the health, safety, and prosperity of its people, businesses, agriculture, energy, industry, recreation, and natural resources.



VALUES

The Department of Water Resources values fairness, objectivity, accountability, responsiveness, engagement, and credibility. We pledge to use professional and scientific methods to maintain the highest of standards in our delivery of services.

MANAGING NORTH DAKOTA'S WATER RESOURCES

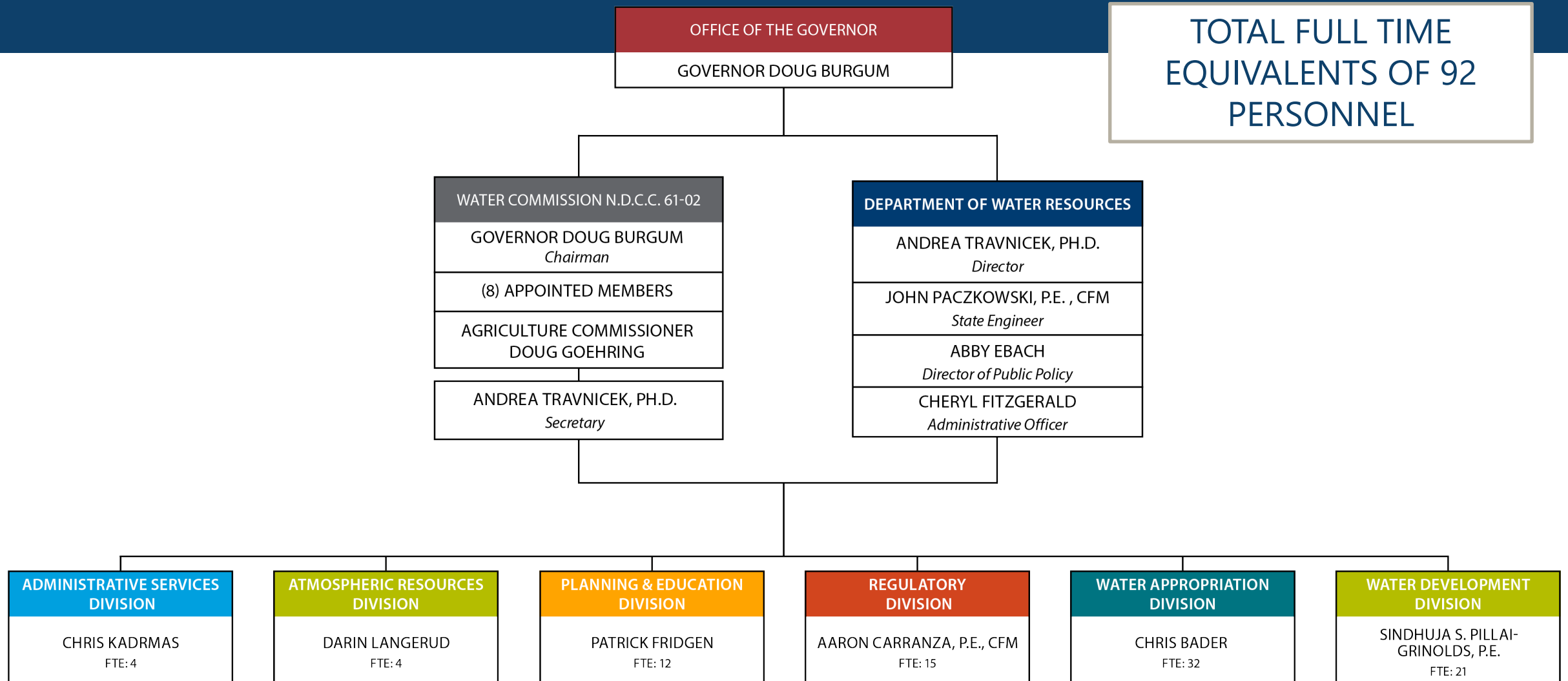


60 Million Acre-Feet Of Water Is Stored In Major Aquifers In ND

Over 7,000 River Miles Are In The State, Including Major Rivers & Tributaries

Seven Of NDs Largest Lakes & Reservoirs Cover **863,000** Acres

DWR ORGANIZATIONAL CHART



WORKFORCE

TEAM DWR

Asked For 3 FTE

Approved By Emergency Commission

2 FTE + 1 Temp Approved By Budget Section
(March 2022)

Water Appropriation | Regulatory | PRESENS

- Continued Challenges With Salary Equity
- **22.6% Turnover** In 2022
- **20 New Team Members Hired In 2022**
- Cooperating With NDSU & Others To Guide Course & Curriculum Focus To Better Prepare Students



WATER COMMISSION



SWC Chair
Governor Burgum



Ag. Comm.
Goehring



DWR DIRECTOR & STATE ENGINEER



DWR DIRECTOR

Andrea Travnicek, Ph.D., Director
atravnicek@nd.gov | 701-328-4942

The Director is appointed by the governor, serves as a Cabinet member, provides overall leadership and decision-making, oversees the State Engineer and DWR team members, and serves as Secretary to the State Water Commission.



STATE ENGINEER

John Paczkowski, P.E., State Engineer
jpaczkowski@nd.gov | 701-328-4940

ND's State Engineer is responsible for several regulatory functions and responsibilities, including allocation of the state's waters, dam safety, and drainage.

DWR DIVISIONS



ADMINISTRATIVE SERVICES

Chris Kadrmas, Director
ckadrmass@nd.gov | 701-328-1956

General support, budget development, records management, human resources, State Water Commission meeting preparation, and accounting.



ATMOSPHERIC RESOURCES

Darin Langerud, Director
dlangerud@nd.gov | 701-328-4751

Cloud Modification Program, atmospheric research, data collection, pilot intern program, licenses and permits, and radar operations.

DWR DIVISIONS



PLANNING & EDUCATION

Patrick Fridgen, Director
pfridgen@nd.gov | 701-328-4964

Water Development Plan, media relations, public outreach and education, Drought Livestock Water Supply Program, Cost-Share Program, and MR&I Program.



REGULATORY

Aaron Carranza, P.E., Director
acarranza@nd.gov | 701-328-4813

Construction and drainage permits, sovereign lands, dam safety, floodplain management, water resource district support, and Silver Jackets Program.

DWR DIVISIONS



WATER APPROPRIATION

Chris Bader, Director
cbader@nd.gov | 701-328-4771

Water rights permitting, ground and surface water management, subsurface exploration, PRESENS, data management, and water resource investigations.



WATER DEVELOPMENT

Sindhuja S. Pillai-Grinolds, Director
spillai@nd.gov | 701-328-4954

Investigations and surveying, construction operations, flood response and recovery, Southwest Pipeline, Northwest Area Water Supply, Red River office, and Devils Lake outlet operations.

DWR FUNCTIONS & RESPONSIBILITIES

Allocation Of The State's Waters

Investigations & Surveys

Cost-Share Funding

LiDAR Collections

Dam Safety

Map Services

Drainage & Construction Permits

North Dakota Cloud Modification Project

Drone Initiatives

PRESENS

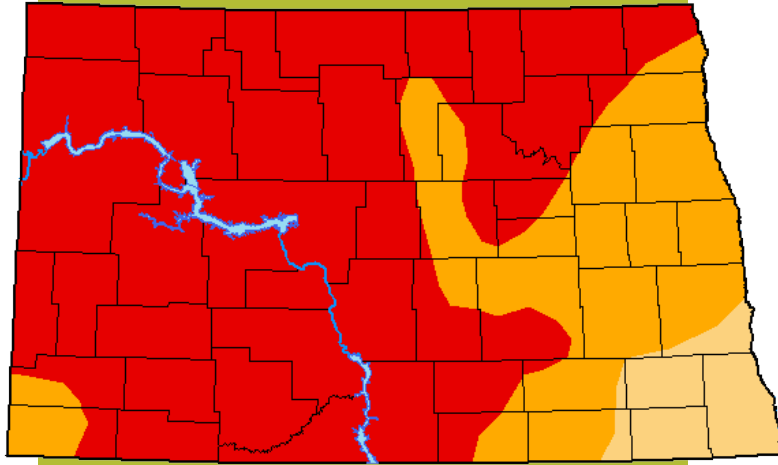
Drought Livestock Program

Sovereign Land Management

Floodplain Management

Water Project Development

ACTIVATION



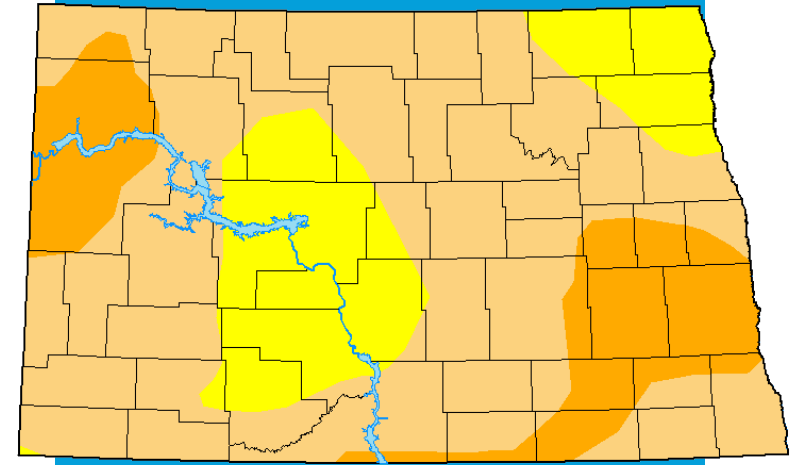
April 2021

DEACTIVATION



September 2022

CURRENT



January 2023

None

D0 (Abnormally Dry)

D1 (Moderate Drought)

D2 (Severe Drought)

D3 (Extreme Drought)

D4 (Exceptional Drought)

**DROUGHT DISASTER
LIVESTOCK WATER SUPPLY
ASSISTANCE PROGRAM**

NAWS UPDATE



UNDER CONTRACT

- Minot WTP Phase II
- Biota WTP Phase I
- South Prairie Reservoir & Hydraulic Control Structure

2023-2025 REQUEST: \$36M

Recently Completed

Service To Bottineau

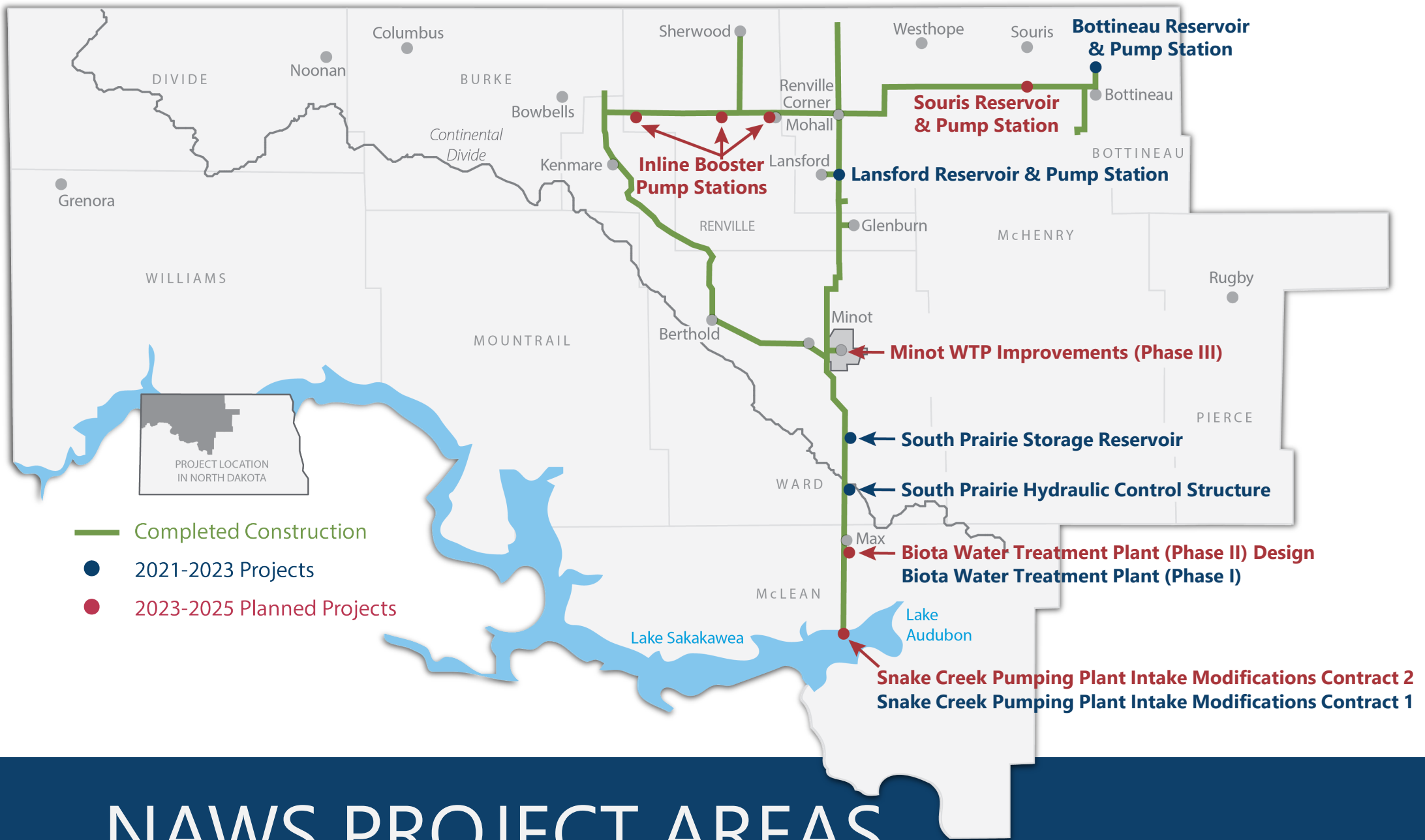
Lansford Reservoir & Pump Station

Snake Creek Intake Modifications

Permitting & Awarded Contracts

Goal

Deliver Missouri Water - End Of 2024



NAWS PROJECT AREAS

SOUTHWEST PIPELINE PROJECT UPDATE

UNDER CONTRACT

- Elevated Tank In City Of Taylor (Substantially Complete)
- Main Transmission Line Parallel Piping (Substantially Complete)
- Supplementary Intake
- Strategic Hydraulic Improvements

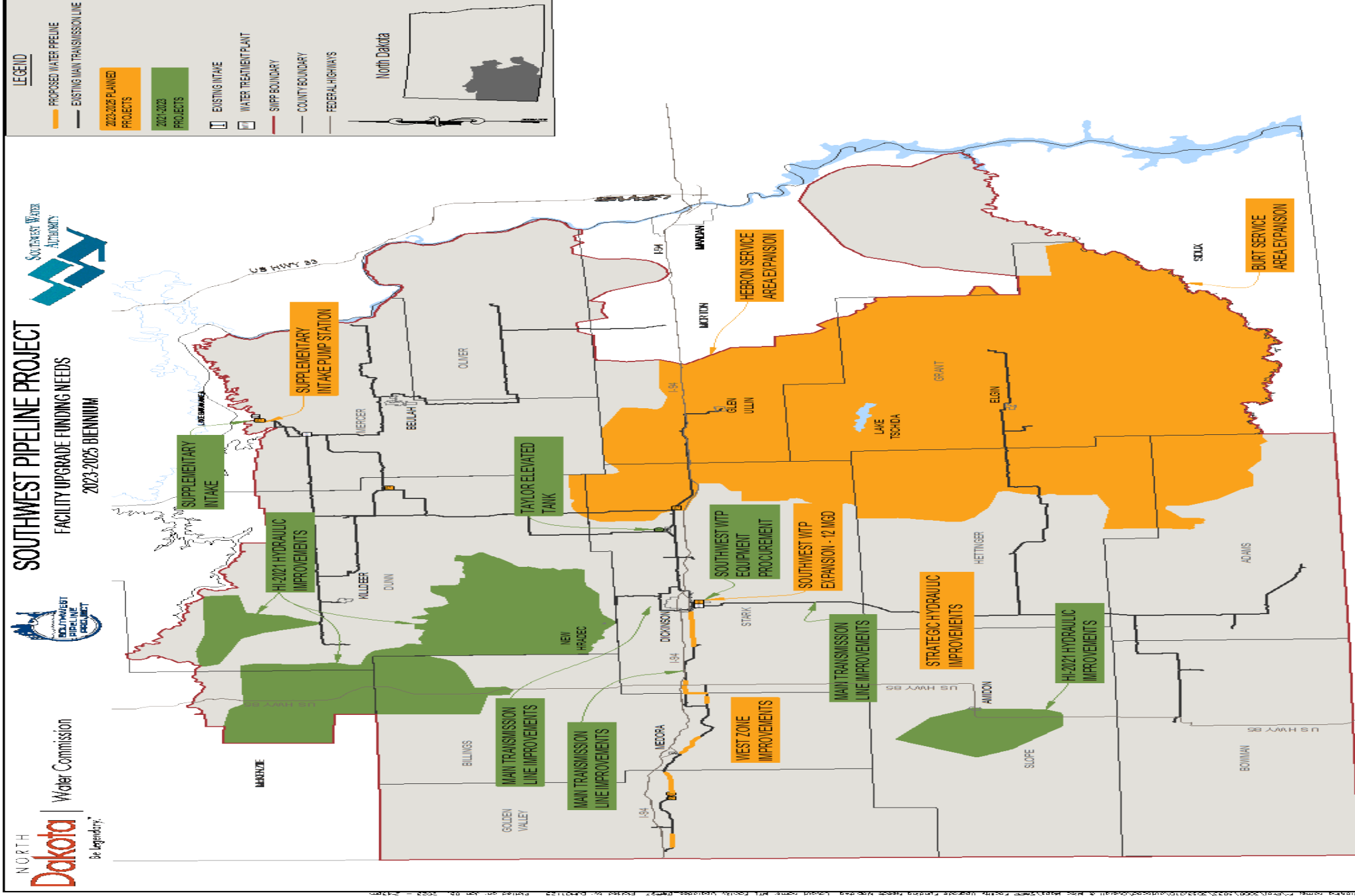
2023-2025 REQUEST: \$131.6M



Future Projects

- Strategic Hydraulic Improvements
- Water Treatment Plant Expansion
- Burt & Hebron Service Area Expansion
- West Zone Transmission Upgrades

SWPPP PROJECT AREAS



DEVILS LAKE OUTLETS UPDATE

OUTLETS | PUMPS | STRUCTURE

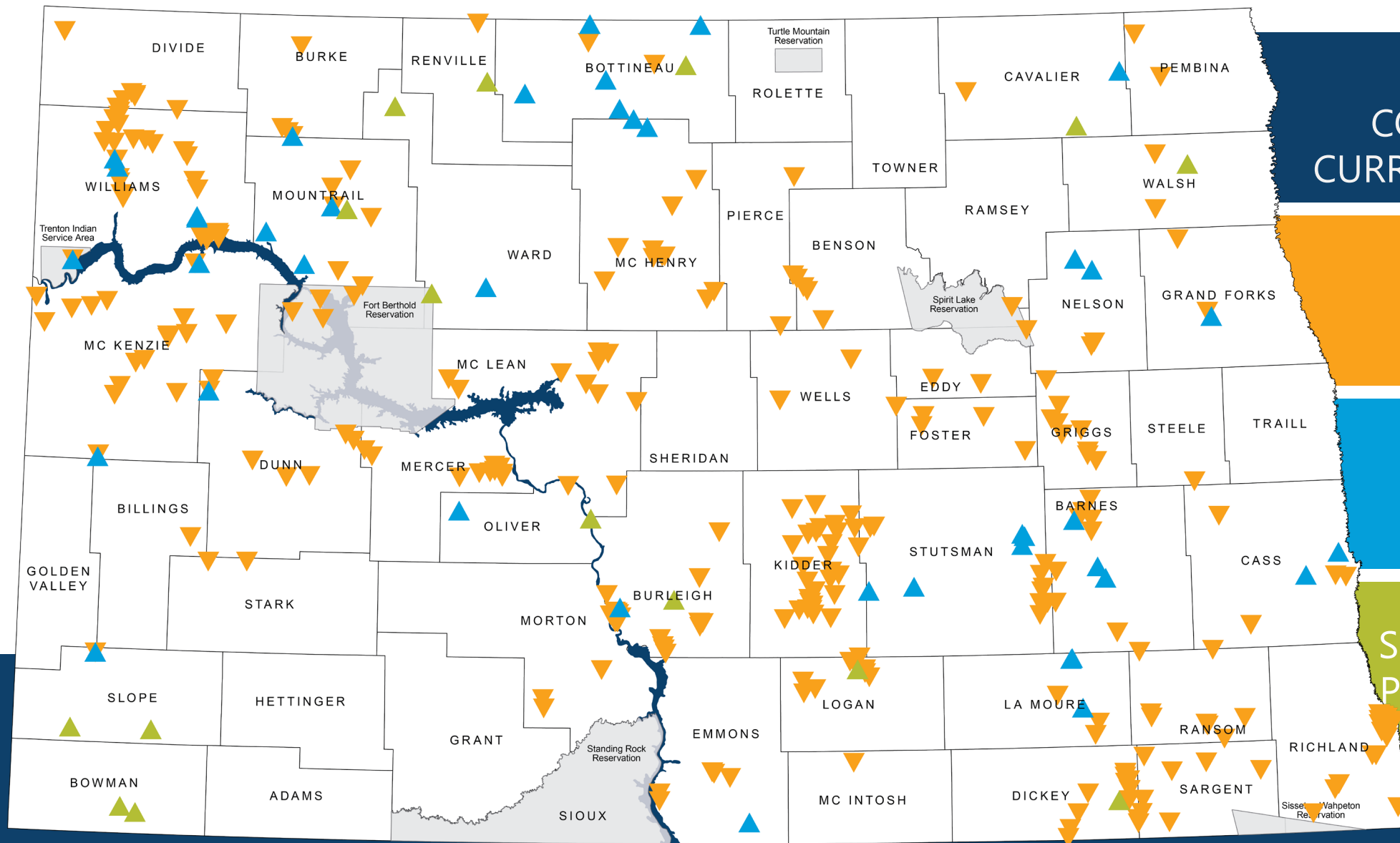
- 60,197 Acre-Feet Pumped In 2022
- Repairs Made To The West End Outlet
 - Terminal Structure
 - Drainpipe (Round Lake Pump #3)
 - Electrical Outage (Round Lake Pump #4)
- Outlet Capital Improvement Plan





- **Constantly Collecting Valuable Water Resource Data** - Publicly Accessible On Agency's Map Services
- **Collect** Water Levels, Precipitation, Soil Moisture, Soil Temperature, Barometric Pressure, Air Temperature
- **368 Locations** Measured Using PRESENS
- **287 Units** Currently Operating
 - Surface Units Are Removed In Winter To Prevent Damage
- **15 Units** Currently Have Rain Gauge & Soil Moisture Sensors
- **Goal Is 680 Units By 2025**
- 2023-2025 REQUEST: **\$1,572,800 (ONGOING)**

PUSHING REMOTE SENSORS (PRESENS)



368 DATA
COLLECTION SITES
CURRENT & HISTORIC

GROUND WATER
SITES (313)

SURFACE WATER
SITES (42)

SOIL MOISTURE &
PRECIP SITES (15)*

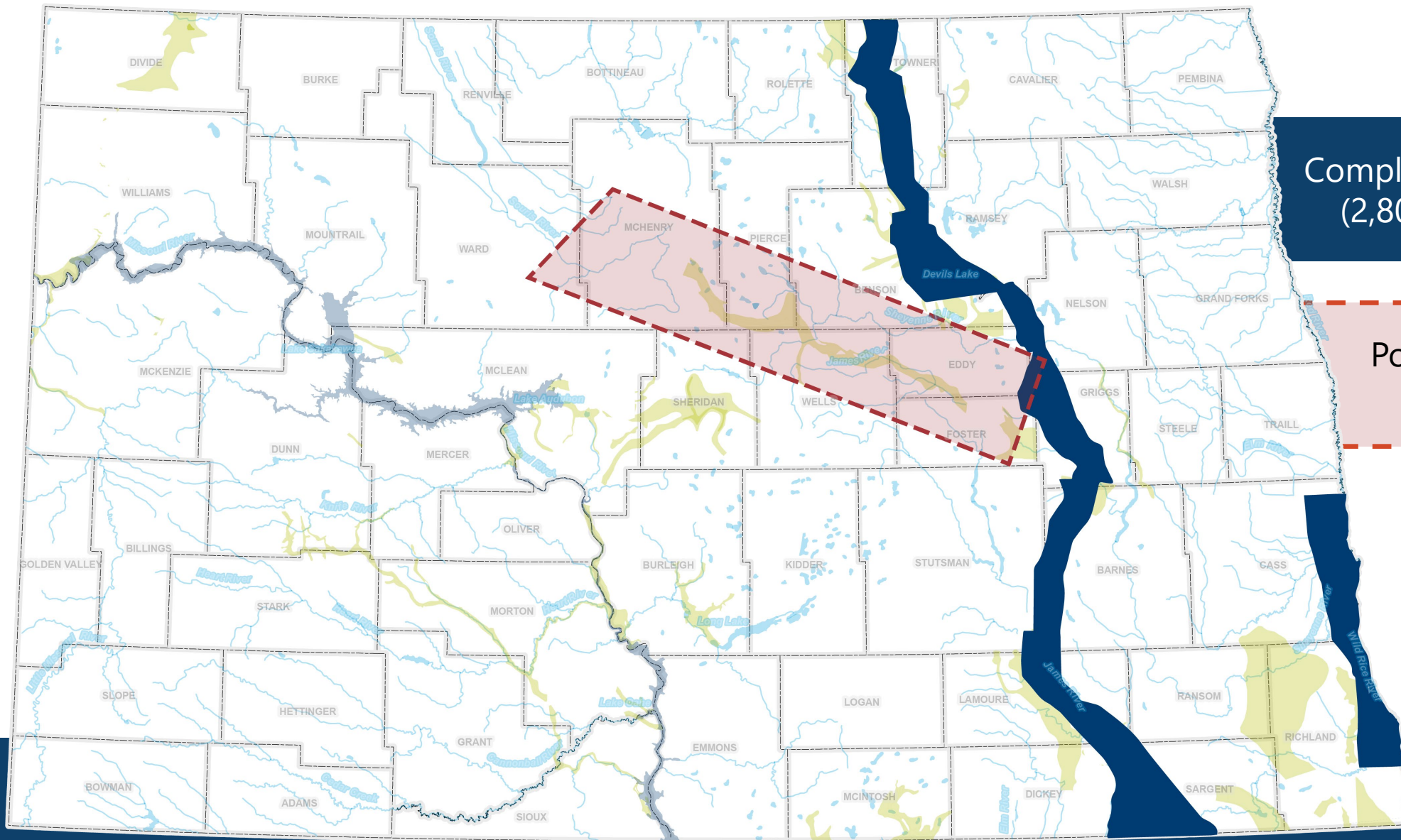
PRESENS LOCATIONS

*Two soil moisture & precip sites are co-located with ground water sites.



AIRBORNE ELECTROMAGNETIC SURVEYS (AEM)

- Provide **High-Resolution Maps** Of Aquifers That Help Water Managers Identify & Optimize Local Sources Of Available Groundwater
- **2,800 Sq. Miles Completed** - With Plans To Expand Data Collection
- 2023-2025 REQUEST: **\$750,000 (ONE-TIME)**



Completed AEM Surveys
(2,800 square miles)

Potential Future
Study Areas

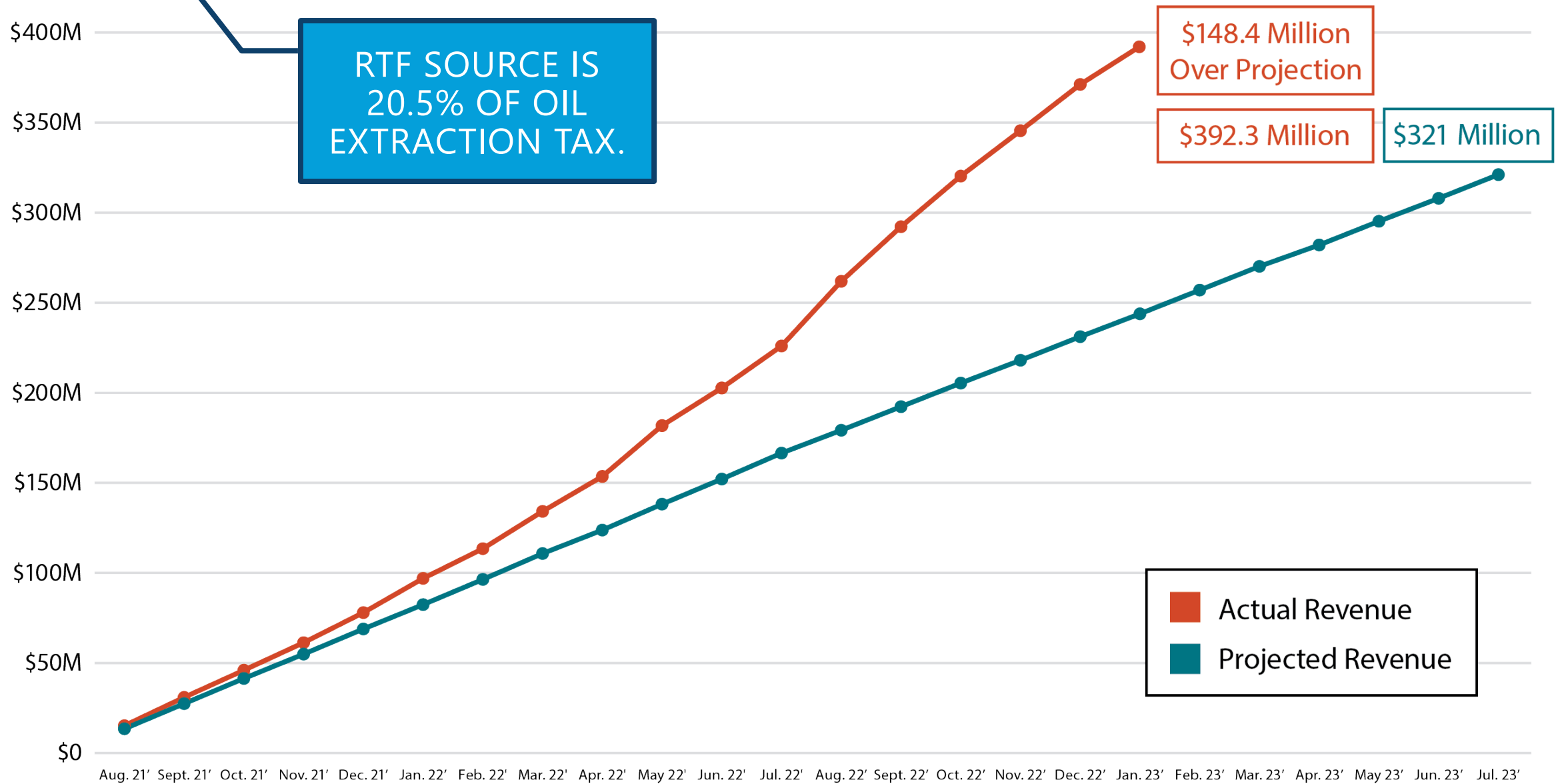
AIRBORNE ELECTROMAGNETIC (AEM) SURVEYS

OTHER DWR HIGHLIGHTS

- **Cost-Share Program Policy Update Completed**
2023-2025 Implementation
- 2021-2023 Cost-Share Program
 - **\$282M** Total Approvals To Date
 - **\$181M** For Water Supply Projects In 27 Cities & 19 Rural/Regional Systems
 - **\$101M** For 98 Different Flood Protection, Water Conveyance, & General Water Projects
- Secured Almost **\$5M** In FEMA Grant Funding For LiDAR Data To Improve & Modernize Modeling & Engineering Design Data Inputs
- Launched A One-Stop-Shop Online Portal Through **WebGrants** For Water Project Sponsors Seeking Grant Funding Or Loans



RESOURCES TRUST FUND REVENUE



WATER PROJECTS STABILIZATION FUND



- Created By SB 2345 During 2021 Special Session
- Funded With Resources Trust Fund Revenues That Surpass Budget Projections
- Transfers To WPSF Stop In February 2023
- Executive Recommendation Includes **\$150M**
 - **\$120M** Red River Valley Water Supply Project
 - **\$30M** Western Area Water Supply Project (Loan Payoff)

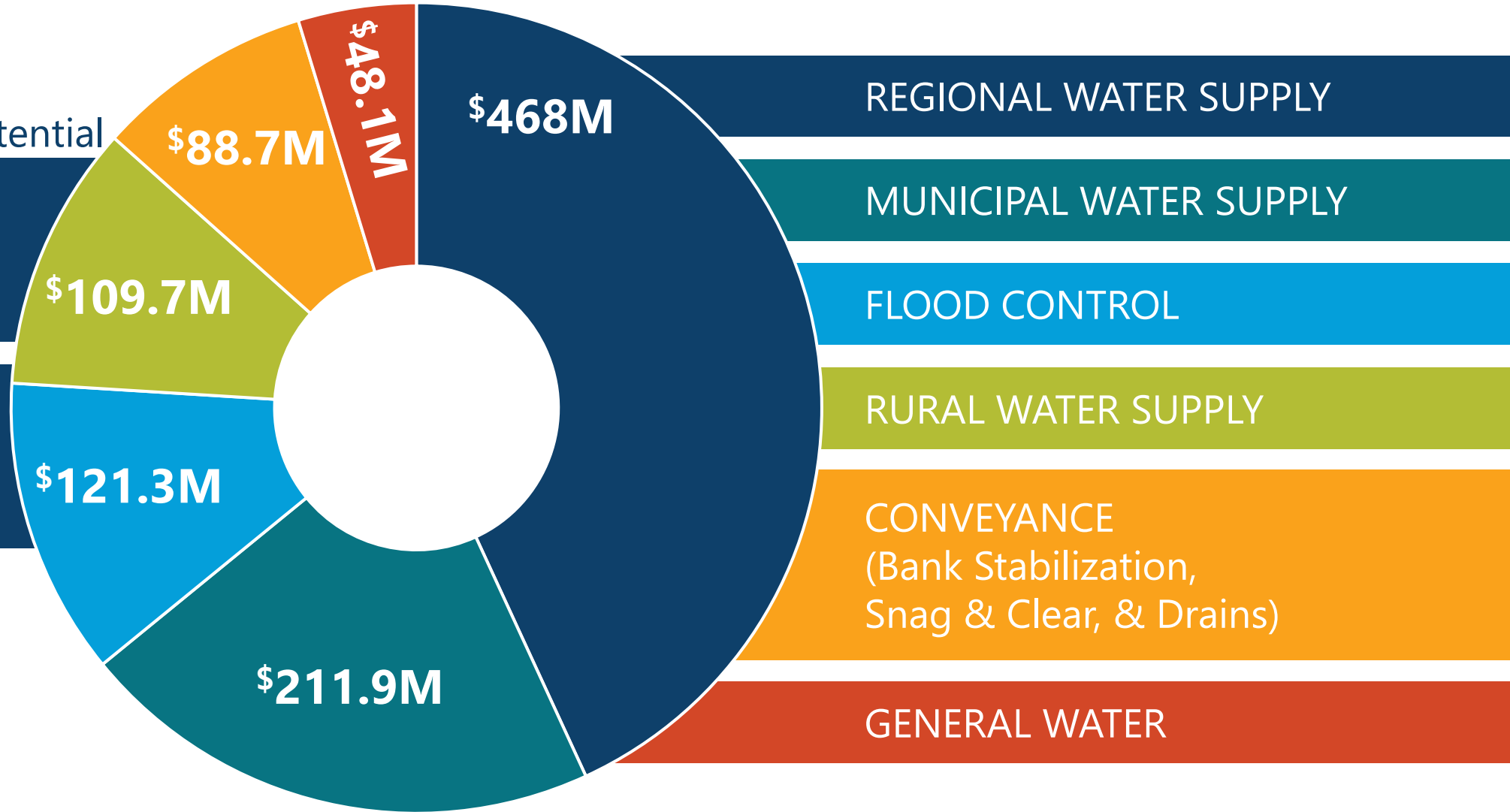
DWR Cost-Share Potential

2023-2025

\$1.05B

2021-2023

\$0.64B



WATER DEVELOPMENT PLAN INVENTORY

2023-2025 PROJECT & PURPOSE FINANCIAL NEEDS SUMMARY

ESTIMATED DWR SHARE BY PRIORITY

Project Purposes	WDP INVENTORY PROJECT NEEDS		
	High Priority	Moderate Priority	Low Priority
Flood Control (Total = \$210M)	\$120.4	\$47.2	\$42.4
F-M Area Diversion	-	-	-
Mandan Flood Risk Reduction	\$11.6	-	-
Mouse River Enhanced Flood Protection	\$76.1	-	-
Other Flood Control	\$19.5	\$0.7	\$0.2
Valley City Permanent Flood Protection	\$13.2	-	-
Water Conveyance	\$0.0	\$46.5	\$42.2
General Water Management (Total = \$48.1M)	\$2.5	\$42.4	\$3.2
Rural Water Supply (Total = \$109.7M)	\$13.7	\$18.8	\$77.2
Water Supply (Total = \$679.9M)	\$467.9	\$1.6	\$210.4
Municipal Water Supply	\$0.0	\$1.6	\$210.4
Northwest Area Water Supply	\$36.0	-	-
Red River Valley Water Supply	\$254.3	-	-
Southwest Pipeline Project	\$131.6	-	-
Western Area Water Supply	\$46.0	-	-
TOTAL (\$1.05B)	\$605	\$110	\$333

WATER DEVELOPMENT PLAN & DASHBOARD



Web-Based
Version

**Launched &
Operational**



Dashboard
Includes

**Interactive
Charts**



Changing
Conditions

**Information Can Be
Updated By Staff**



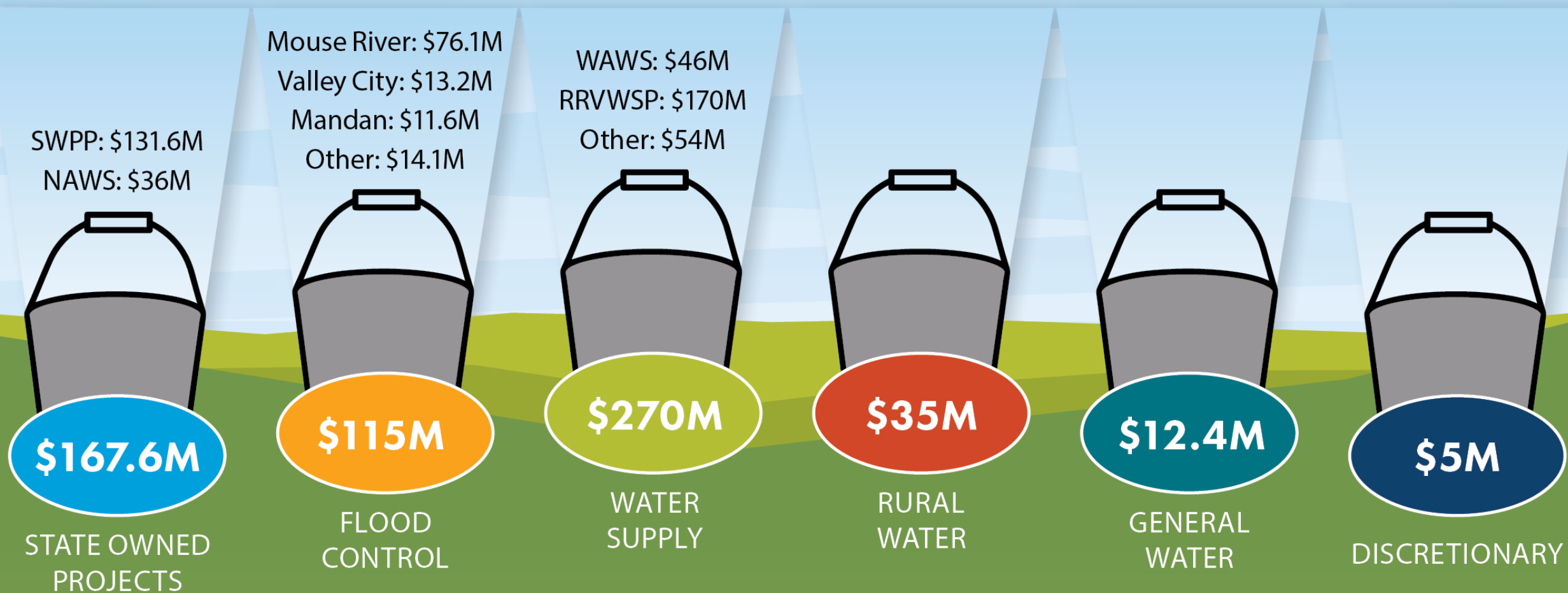
Access
Any Time

**Phones &
Computers**



2023-2025 EXECUTIVE BUDGET RECOMMENDATION

2023-2025 PURPOSE FUNDING RECOMMENDATIONS



SB 2020: DWR BUDGET SUMMARY

	2021-2023 Base Level	Increase/ (Decrease)	2023-2025 Executive Rec.
Salaries & Wages	\$20,537,867	\$3,272,011	\$23,809,878
Operating Expenses	\$43,366,550	\$16,112,518	\$59,479,068
Capital Assets	\$98,467,437	\$73,928,907	\$172,396,344
Water Supply Projects	\$125,000,000	\$145,000,000	\$270,000,000
Rural Water Supply	\$59,600,000	(\$24,600,000)	\$35,000,000
Flood Control Projects	\$48,000,000	\$67,000,000	\$115,000,000
General Water Projects	\$14,227,275	\$6,000	\$14,233,275
Discretionary Projects	-	\$5,000,000	\$5,000,000
TOTAL	\$409,199,129	\$285,719,436	\$694,918,565
Full Time Equivalents (FTE)	90	3	93

DWR BUDGET: OPTIONAL REQUESTS

OPTIONAL REQUESTS	3 FTE	EXECUTIVE RECOMMENDATION	\$773,062
	1 Full Time Temp - NAWs		\$170,000
	Motor Pool Rate Increase		\$118,180
	IT Standardization, Applications, & Security		\$5,615,764
	PRESENS Installations & Temp Salaries		\$1,572,800
	Drilling Supply Cost Increases		\$180,000
	Navigability Study		\$180,000
	AEM Survey Technology		\$750,000
	Groundwater Modeling/Analysis Software		\$94,665
	Professional Development		\$80,000
	Full Time Temp - FTE Conversion		\$61,609
	Bowman Radar Replacement		\$1,800,000
	New Drilling Rig		\$1,800,000
	Office Modifications		\$200,000
	<i>RiskMAP - *Federal Funding Spending Authority</i>		<i>\$100,000*</i>
TOTAL OPTIONAL REQUESTS		\$13,496,080	

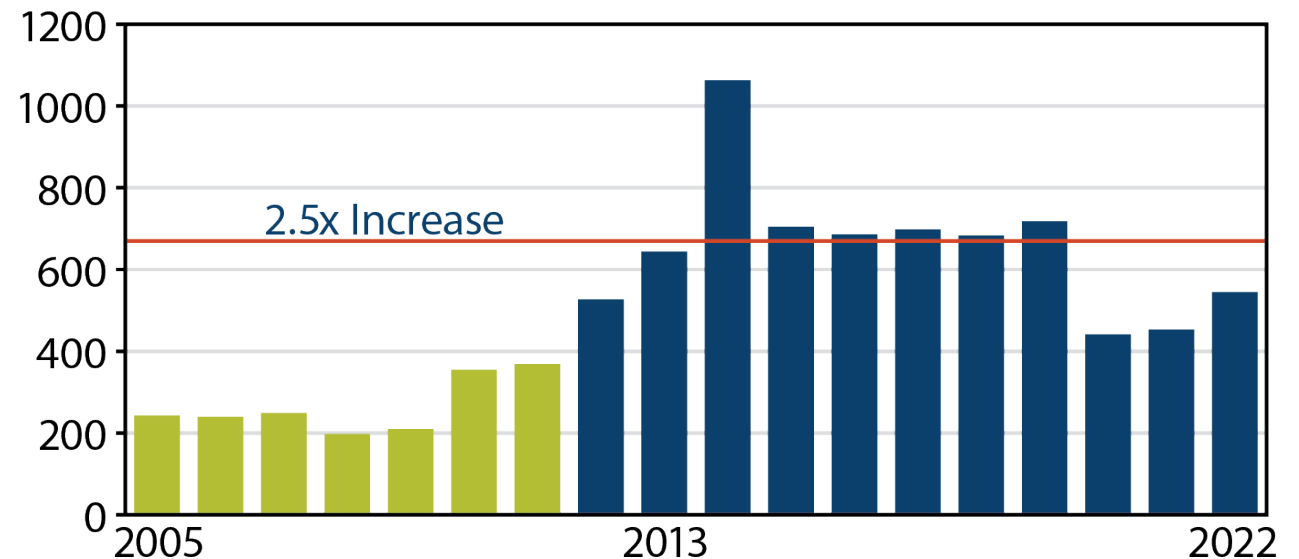
REQUEST FOR 3 FTE

2023-2025 REQUEST:
\$773,062

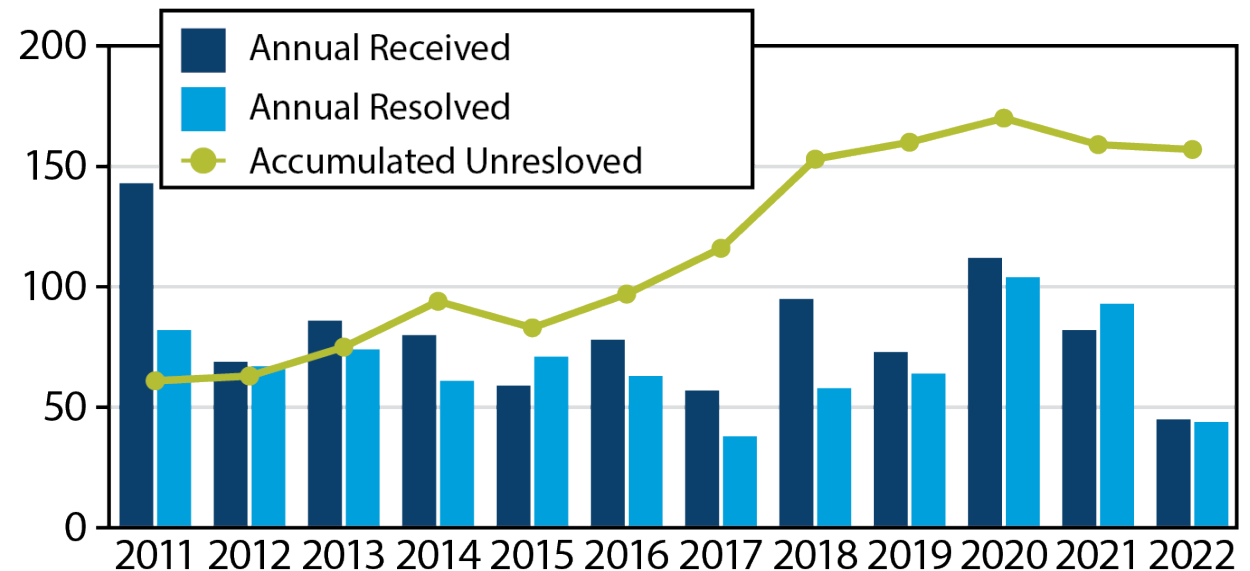
Includes One For The Regulatory Division To Assist With Permitting & Two For The Water Appropriation Division That Would Work On Water Appropriation & PRESENS System Support

Assist With Significantly Reducing Delays So Constituents Receive Permits In A Timelier Manner

TEMPORARY WATER PERMIT APPLICATIONS (ANNUAL)



TRENDS IN REGULATORY APPLICATIONS & REVIEWS



IT STANDARDIZATION, APPLICATIONS & SECURITY



To Consolidate & Standardize IT Services Under One Umbrella Through NDIT:

- File Services
- Computational Infrastructure For Scientific Applications
- Big Data Development/Production For Various Data Types
- Big Data Administrative Costs
- Costs Associated With Additional FTE For NDIT
- Business Analysis
- Project Management
- Project Oversight

**2023-2025 Request:
\$5,615,764**

ADDRESSING SALARY CHALLENGES FOR OUR TEAM MEMBERS

\$645K

Recommended To Address
Internal Equity & External
Market Factors That Affect
Existing Team Members. This
Would Assist With Reducing
Turn-over & Would Support
Competitive Pay &
Compression Adjustments.

DWR SUPPORTS SENATE BILL 2015

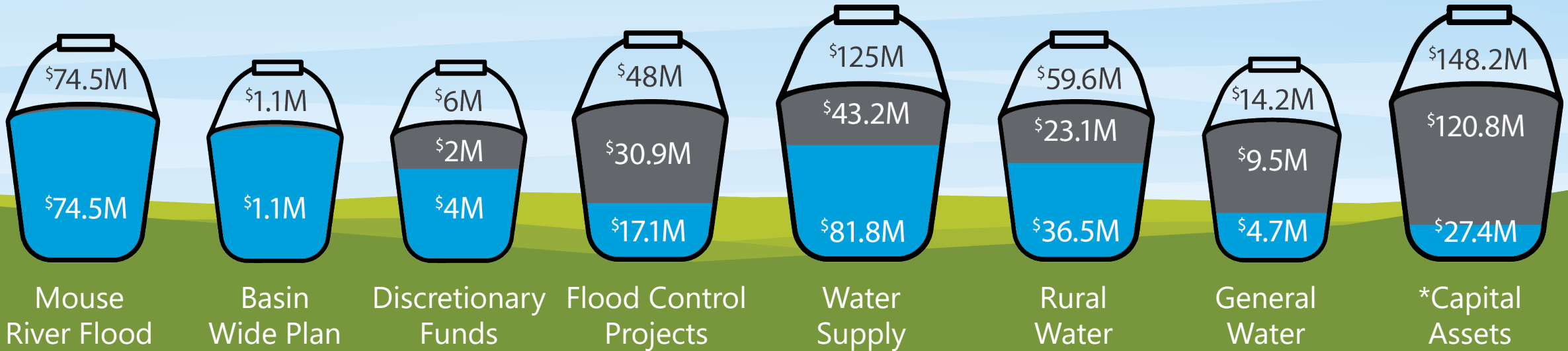
Example:
Hydrologist Positions Are
Well Below Private Sector.

HYDROLOGIST
POSITIONS

22%

2021-2023 PURPOSE FUNDING

UPDATED THROUGH NOVEMBER 2022



UNOBLIGATED

APPROVED

ESTIMATED CARRYOVER
\$240M - \$320M



Federal Funds-State
Fiscal Recovery Funds -
SB 2345

Spent

*Capital
Assets bucket
includes
\$45.6M line of
credit.



OBJECTIVES

5-YEAR STRATEGIC PLAN

OBJECTIVE 1

Effectively communicate with the public and stakeholders with a primary focus on collaboration and building partnerships.

OBJECTIVE 2

Develop world-class, sustainable, and resilient water development and management practices.

OBJECTIVE 3

Support beneficial use of Missouri River system water and other available water supply sources.

OBJECTIVE 4

Implement innovative ideas, technology, and grow analytic capabilities to improve efficiencies in water management and development.

OBJECTIVE 5

Improve the department's internal resilience and promote a positive culture.

Multiple Goals & Tactics Associated With Each Objective.

THIS BUDGET SUPPORTS...



- Agency Responsiveness & Efficiencies
- Advancement Of Innovative Ideas & Technology
- Critical Water Infrastructure
- Workforce Enhancement, Retention Of Talent, Recruiting & Mentoring



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THANK YOU



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